

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/014421

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> H01L21/3065

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
Int.Cl<sup>7</sup> H01L21/3065, H01L21/205, H05H1/46Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004  
Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.    |
|-----------|---|--------------------------|
| X         | JP 2002-512445 A (APPLIED MATERIALS, INC.),<br>23 April, 2002 (23.04.02),<br>Par. No. [0024]; Fig. 4b<br>& WO 1999/054908 A1 & US 5819434 A                                   | 1-9, 15, 16,<br>23-30    |
| X         | JP 11-256328 A (Tokyo Electron Ltd.),<br>21 September, 1999 (21.09.99),<br>Par. Nos. [0006] to [0037]; Figs. 1 to 8<br>& WO 1999/045166 A1 & EP 1061155 A1<br>& US 6599367 B1 | 1-6, 9, 15, 16,<br>23-30 |
| X         | JP 07-007001 A (Hitachi, Ltd.),<br>10 January, 1995 (10.01.95),<br>Par. Nos. [0019] to [0020]; Fig. 4<br>& US 5423936 A   | 9-11, 15, 16,<br>28-30   |

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

## \* Special categories of cited documents:

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
10 December, 2004 (10.12.04)Date of mailing of the international search report  
28 December, 2004 (28.12.04)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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PCT/JP2004/014421

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.    |
|-----------|---|--------------------------|
| X         | JP 11-256370 A (Mitsubishi Materials Corp.),<br>21 September, 1999 (21.09.99),<br>Par. Nos. [0011] to [0012]; Fig. 2<br>(Family: none)        | 9-16, 28-30              |
| X         | JP 2000-306886 A (Hitachi Chemical Co., Ltd.),<br>02 November, 2000 (02.11.00),<br>Par. Nos. [0002] to [0036]; Figs. 1 to 4<br>(Family: none) | 9, 15-19,<br>28-30       |
| X         | JP 10-050678 A (Ibiden Co., Ltd.),<br>20 February, 1998 (20.02.98),<br>Par. No. [0025]; Figs. 4, 6<br>(Family: none)                          | 9, 20, 21,<br>28-30      |
| X         | WO 2000/074127 A1 (Tadahiro OMI),<br>07 December, 2000 (07.12.00),<br>Page 6, line 1 to page 29, line 10; Fig. 1<br>& EP 1115147 A1           | 9, 15, 16, 22,<br>28-31  |
| X<br>A    | JP 2002-355550 A (Tadahiro OMI),<br>10 December, 2002 (10.12.02),<br>Full text; Fig. 5<br>& EP 1300878 A1 & WO 2002/080253 A1                 | 22, 28-31<br>1-21, 23-27 |